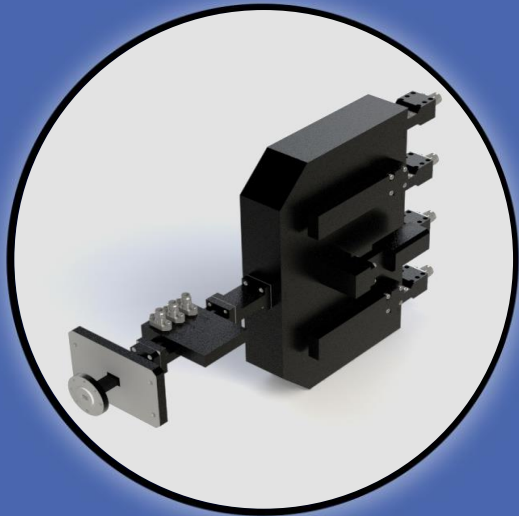


WR22 Power Combining System Assembly



Description

The WR22 Combining System Assembly operates with remarkable stability and precision in the demanding millimeter-wave (mm-wave) frequency band. This compact device adeptly combines power from multiple RF sources through a 4-way combiner and cross-guide coupler integration. Its versatility allows for signal sampling via the cross-guide coupler, facilitating both input and output power level monitoring. The three Magic Tees at its core meticulously control signal combination by adjusting amplitudes and phases, ensuring seamless and interference-free merging. High power terminations at the loaded ports provide crucial source malfunction protection. The assembly's seamless transition to the 2.4mm(m) interface at input ports, aided by highly matched end launch adapters, guarantees signal integrity. A bulkhead simplifies the connection at the output interface. With high matching and minimal insertion loss, it proves highly effective for enhancing signal strength and operational efficiency, making it an indispensable tool in **advanced telecommunications, radar technology, and the mm-wave spectrum.**

Electrical Specifications

Frequency	: 40.00 – 50.00 GHz
VSWR - Input	: 1.70: 1
VSWR - Output	: 1.70: 1
Insertion Loss	: 1.3 dB
Isolation - Near	: 21.0 dB
Isolation - Far	: 30.0 dB
Nominal Coupling – Forward	: 30.0 dB ± 1.5 dB
Nominal Coupling – Reverse	: 30.0 dB ± 1.5 dB
Directivity	: > 18.0 dB
Power Handling – Average	: 12 W CW

Mechanical Specifications

Waveguide Size	: WR 22
Interface – Input Ports	: 2.4mm(m)
Interface - Output	: UG-383/U Round Cover
Material	: Aluminum 6061
Finish	: Silver
Paint	: Black

Contact Info :

Address:
5790 rue Donahue,
St-Laurent, QC
Canada, H4S 1C1

Phone:
(+1) 514-664-5790

Website:
www.smcq.com

email:
info@smcq.com



WR22 Power Combining System Assembly Typical Measured Results

